

**Commonwealth of Kentucky**  
**Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Mark Labhart

GENERAL INFORMATION:

Name:	Carpenter Co.
Address:	200 Forrest Park Drive Russellville, KY 42276
Date application received:	July 7, 2008
SIC/Source description:	3086, Plastics Foam Products
Source ID #:	21-141-00012
Source A.I. #:	2751
Activity #:	APE20080001
Permit number:	V-06-028 R2

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input checked="" type="checkbox"/> Permit modification	<input checked="" type="checkbox"/> Conditional major
___Administrative	<input checked="" type="checkbox"/> Title V
<u>x</u> Minor	<input checked="" type="checkbox"/> Synthetic minor
___Significant	<input checked="" type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input checked="" type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input checked="" type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☒ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☐ Diagrams or drawings included
- ☒ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

**EMISSIONS SUMMARY:**

Pollutant	Potential (tpy)	Allowable (tpy)
PM/PM <sub>10</sub>	92.1	--
SO <sub>2</sub>	0.14	--
NO <sub>x</sub>	23.8	--
CO	20	--
VOC	626.5	225 *
Single HAPs Methanol (67-56-1)	11	9
Source wide HAPs	14.4	22.5

\* Synthetic Minor Limit

**MINOR REVISION, V-06-028 R2:**

Carpenter Co. is planning the addition of (8) storage tanks to an indoor tank farm. Since the tanks are located inside, breathing losses are negligible. Seven of the tanks will also be vented to activated carbon drums. Total emissions are expected to be less than 4 lbs/yr.

1. **40 CFR Part 60, Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984; is not applicable.** This regulation does not apply to tanks with a capacity less than 75 cubic meters (19,813 gallons). Two of the proposed tanks have capacities of 11,480 gallons and two tanks have capacities of 12,156 gallons. The remaining four tanks are 51,438 gallons each, however § 60.110b (b) exempts storage vessels with a capacity greater than or equal to 151 m<sup>3</sup> (39,890 gallons) storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa). The vapor pressure of the diisocyanate is less than 3.5 kPa.

**SOURCE DESCRIPTION:**

Carpenter Co. makes flexible polyurethane foam and other comfort cushioning products. The main operation is slabstock foam production. The foam is produced in large “buns” which can then be cut to make many different products. Slabstock trim scrap is used in rebond production. Here the scrape foam is ground into small pieces that are bonded together in a large mold. The molded rebond foam can then be sliced into desired shapes.

Foam fabrication is another process taking place at Carpenter. In the fabrication process foam pieces are glued to backing materials or glued to each other to make intricate shapes. The foam fabrication process is very different than either slab stock or rebond production. The foam is completely cured

so there are no emissions for the foam itself. Emissions from the fabrication process are from the adhesives used to bond the pieces together.

Carpenter also produces cushioning products using adhesive bonded and thermally bonded polyester fibers. VOC and HAP are emitted from the adhesives, but the thermal bonding process has negligible emissions. Remaining equipment and operations at Carpenter are support for the previously described operations, i.e. facility boilers, bulk material handling equipment, railcar unloading, etc.

#### **EMISSIONS AND OPERATING CAPS DESCRIPTIONS:**

Carpenter Company has requested voluntary Synthetic Minor permit emission limits of 225 tons per year VOC, plus additional limits on Hazardous Air Pollutants (HAP) of 9.0 tons per year or less for individual HAPs and 22.5 tons per year or less for all combined HAP emissions.

#### **OPERATIONAL FLEXIBILITY:**

Carpenter Company is not restricted as to hours of operation or quantity of product produced while remaining within the caps above.